

AMENDMENTS TO THE SPECIFICATION:

Please replace page 3, line 4 with the following:

where $t \in \mathbb{R}$, $x \in \mathbb{R}^n$, and $\lambda \in \mathbb{R}^m$ represents time, an n -dimensional state space,

Please replace page 3, lines 14 – 15 with the following:

a solution of $\dot{x}(t) = f(t, x(t), \lambda)$, if $t \in \mathbb{R}$, with respect to any initial value $x(0) \in \mathbb{R}^n$ and all the system parameters $\lambda \in \mathbb{R}^m$: $x(0) = x_0$ $\lambda \in \mathbb{R}^m$: $x(0) = \varphi(0, x_0, \lambda) = x_0$.

Please replace page 4, line 2 with the following:

In the case where the solution $x(t) = f(t, p_0, \lambda)$ of differential equation (1)

Please replace page 4, line 6 with the following:

the point $p_0 \in \mathbb{R}^n$ satisfying eq. (5) is called a fixed point with respect to map T .

Please replace page 5, lines 2-4 with the following:

where $T(x_0)$, x_0 , and λ can be expressed as $T(x_0) = [T_1(x_0), T_2(x_0), \dots, T_n(x_0)]^T$, $x_0 = x(0) = [x_1(0), x_2(0), \dots, x_n(0)]^T$, and $\lambda = [\lambda_1, \lambda_2, \dots, \lambda_m]^T$, respectively. Further, \mathbb{R}^N is defined as:

where $T(x_0, \lambda)$, x_0 , and λ can be expressed as $T(x_0, \lambda) = [T_1(x_0, \lambda), T_2(x_0, \lambda), \dots, T_n(x_0, \lambda)]^T$, $x_0 = x(0) = [x_1(0), x_2(0), \dots, x_n(0)]^T$, and $\lambda = [\lambda_1, \lambda_2, \dots, \lambda_m]^T$, respectively. Further, $\lambda_u \in \mathbb{R}^N$ is defined as:

Please replace page 5, line 9 with the following:

expressed as $u \in \mathbb{R}^{n+N}$: $u = [x_0^T, u^T]^T$, and then an iterative calculation:

Please replace page 5, lines 12-13 with the following:

is performed until the termination condition of $\|u^{k+1} - u^k\| < \delta$ is satisfied, where $F \in \mathbb{R}^{(n+N)(n+N)}$ represents the Jacobi matrix of F , i.e.,

Please replace page 6, lines 11 – 14 with the following:

~~and (t, u_k) . That is, if eqs.(11) are solved from 0 to t_T or t_{ck} with the Runge-Kutta Method, $(t_T, u_k) \rightarrow x_0$, $(t_{ck}, u_k) \rightarrow x_0$, $(t_T, u_k) \rightarrow$, and $(t_{ck}, u_k) \rightarrow$ can be derived. T_k is a function of φ , and also g_k can typically be expressed as a function of φ , and therefore, from these values, $T_k(u_k) \rightarrow x_0$,~~

~~and $\partial \varphi(t, u^k) / \partial \lambda$. That is, if eqs.(11) are solved from 0 to t_T or t_{ck} with the Runge-Kutta Method, $\partial \varphi(t_T, u^k) / \partial x_0$, $\partial \varphi(t_{ck}, u^k) / \partial x_0$, $\partial \varphi(t_T, u^k) / \partial \lambda$, and $\partial \varphi(t_{ck}, u^k) / \partial \lambda$ can be derived. T_k is a function of φ , and also g_k can typically be expressed as a function of φ , and therefore, from these values, $T_k(u^k) / \partial x_0$,~~

Please replace page 7, line 1 with the following:

~~$T_k(u^k)$, $g_k(t_{ck}, u^k) \rightarrow x_0$, and $g_k(t_{ck}, u^k) \rightarrow T_k(u^k) / \partial \lambda$, $g_k(t_{ck}, u^k) / \partial x_0$, and $g_k(t_{ck}, u^k) / \partial \lambda$ can be numerically derived.~~

Please replace page 7, line 3 with the following:

above-described calculation, and consequently λ_u that is the design value of the

Please replace page 7, line 20 with the following:

current waveform $x(t) = (t, x_0, \lambda)$ by providing the circuit equation in an explicit

Please replace page 10, lines 1-3 with the following:

variable x , it is assumed that a solution (output waveform) of $x(t) = (t, x_0, \lambda)$ can be observed with respect to any initial value $x_0 \in \mathbb{R}^n$ and all system parameters \mathbb{R}^m : $x(0) = (0, x_0, \lambda) \in \mathbb{R}^m$: $x(0) = \varphi(0, x_0, \lambda) = x_0$, where $x(t)$ has periodicity of period t_T

Please replace page 10, lines 9-10 with the following:

necessarily a function of time $t_{c1} \sim t_{cn}$, but functions of x_n and $\{\cdot\} \underline{\lambda}$. Consequently, in the prior method, only a condition for a time response $\{\cdot\} \underline{\varphi}$ at a certain time t_c

Please replace page 10, line 16 with the following:

responses $\{\cdot\} \underline{\varphi}$ derived from the circuit equation, observations in a domain other

Please replace page 10, line 25 with the following:

observed $\underline{x}(t) = (t, x_0, \dots) \underline{x}(t) = \underline{\varphi}(t, x_0, \underline{\lambda})$. On the other hand, the elements of the Jacobi

Please replace page 11, line 11 with the following:

where $\{\cdot\} \underline{\varepsilon}$ is an infinitesimal coefficient $g(u_{\underline{\varepsilon}})$ can be derived by substituting $u_{\underline{\varepsilon}}$ i

Please replace page 11, line 15 with the following:

and consequently the design value $\{\cdot\} \underline{\lambda}_u$ is decided, whereby the design of the

Page 12, please delete lines 26 and 27.

Page 13, please delete in its entity.